

Claims

1. A spirit-level vial comprising a transparent vessel containing a globule of a first liquid suspended in a medium comprising a second liquid, wherein said transparent vessel is essentially completely filled by said medium, and wherein said globule is capable of moving freely through said medium in response to changes in the spatial orientation of said transparent vessel.
2. The spirit-level vial according to claim 1, wherein the first liquid has a higher density than the second liquid.
3. The spirit-level vial according to claim 1, wherein the second liquid has a higher density than the first liquid.
4. The spirit-level vial according to claim 1, wherein the first liquid is an organic liquid and the second liquid is an aqueous liquid.
5. The spirit-level vial according to claim 1, wherein the first liquid is an aqueous liquid and the second liquid is an organic liquid.
6. The spirit-level vial according to claim 1, wherein both the first and second liquids are organic liquids.
7. The spirit-level vial according to claim 3, wherein the first liquid is an aqueous liquid and the second liquid is an organic liquid.
8. The spirit-level vial according to claim 7, wherein the

aqueous liquid comprises a mixture of water, alcohol and a colored dye.

9. The spirit-level vial according to claim 7, wherein the organic liquid comprises one or more compounds selected from the group consisting of organohalogen compounds and polyphenyl ethers.

10. The spirit-level vial according to claim 9, wherein the organohalogen compound is selected from the group consisting of halogenated  $C_1$ - $C_{10}$  straight or branched alkanes, halogenated  $C_3$ - $C_{10}$  cycloalkanes, halogenated straight or branched  $C_2$ - $C_{10}$  alkenes, halogenated  $C_3$ - $C_{10}$  cycloalkenes, halogenated  $C_2$ - $C_{10}$  straight or branched alkynes.

11. The spirit-level vial according to claim 9, wherein the organohalogen compound is a fluorinated or perfluorinated aliphatic or alicyclic compound.

12. The spirit-level vial according to claim 3, wherein the first liquid is an organic liquid and the second liquid is an aqueous liquid.

13. The spirit-level vial according to claim 12, wherein the organic liquid constituting the globule comprises one or more compounds selected from the group consisting of  $C_5$ - $C_{18}$  straight or branched alkanes,  $C_5$ - $C_{10}$  cycloalkanes, straight or branched  $C_5$ - $C_{10}$  alkenes,  $C_5$ - $C_{10}$  cycloalkenes and  $C_5$ - $C_{10}$  straight or branched alkynes.

14. The spirit-level vial according to claim 12, wherein the organic liquid constituting the globule is an oil, or a mixture of oils.

15. The spirit-level vial according to any one of the preceding claims, wherein the first and/or second liquids further comprise visibility-enhancing particles.

16. The spirit-level vial according to claim 15, wherein the visibility-enhancing particles are fluorescent particles.

17. The spirit-level vial according to any one of claims 1 to 14, wherein both of the two liquids are strongly colored, and wherein two liquids are each colored with a mutually-contrasting color.

18. The spirit-level vial according to any one of claims 1 to 14, wherein one of the two liquids is strongly colored, the other liquid being essentially colorless.

19. The spirit-level vial according to any one of the preceding claims, wherein the transparent vessel is constructed of optically clear material selected from the group consisting of polypropylene, polymethylpentene, perspex, polycarbonate and glass.

20. The spirit-level vial according to any one of claims 1 to 19, wherein the internal walls of the vessel are provided with a suitable coating to increase compatibility

with the liquids present therein.

21. A spirit-level comprising:

- a) one or more spirit-level vials according to any one of the preceding claims;
- b) a base element upon which said one or more spirit-level vials are mounted; and
- c) one or more calibrated markings, wherein said calibrated markings are present on the surface of the transparent vessel of each of said one or more spirit-level vials and/or the surface of said base element adjacent to said transparent vessel.

22. A method for producing a spirit-level vial according to claim 1, wherein said vial comprises a transparent vessel containing a globule of a first liquid suspended in a medium comprising a second liquid, wherein said liquids have distinctly different densities, said method comprises introducing into said transparent vessel a suitable quantity of the high-density liquid, immersing the partially filled vessel in the low-density liquid, such that said low-density liquid fills the empty volume of said vessel, and closing said vessel.

23. A method for producing a spirit-level vial according to claim 1, wherein said vial comprises a transparent vessel containing a globule of a first liquid suspended in a medium comprising a second liquid, wherein said liquids have distinctly different densities, said method comprises introducing said liquids into the transparent vessel, exposing said vessel to vacuum to remove air present therein and closing the same.